

**Philadelphia**  
135 South 19th Street  
Suite 300  
Philadelphia, PA 19103  
215-567-4004  
Fax 215-567-5791  
E-Mail [members@cleanair.org](mailto:members@cleanair.org)  
[www.cleanair.org](http://www.cleanair.org)

**Harrisburg**  
107 N. Front St.  
Suite 113  
Harrisburg, PA 17101  
717-230-8806  
Fax 717-230-8808

**Wilmington**  
Community Service Building  
100 W. 10th St.  
Suite 106  
Wilmington, DE 19801  
302-691-0112

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Via Electronic and First Class Mail

Edward Weiner  
Air Management Services  
321 University Ave.  
Philadelphia, PA 19104  
[edward.wiener@phila.gov](mailto:edward.wiener@phila.gov)

**Re: Philadelphia Energy Solutions Refining & Marketing, LLC; Philadelphia Refinery; Plan Approval 12195**

Dear Mr. Wiener,

Clean Air Council ("Council") hereby submits the following comments in response to Air Management Service's ("AMS") notification that it intends to issue plan approval 12195 to Philadelphia Energy Solutions Refining & Marketing, LLC ("PES"), to operate the "Philadelphia Refinery." 42 Pa.B. 6899. The plan approval will allow PES to increase the firing rates for eight process heaters and increase the crude feed throughput limits on two units at the Philadelphia Refinery.

Clean Air Council is a non-profit environmental organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103. For more than 40 years, the Council has fought to improve air quality across Pennsylvania. The Council's mission is to protect everyone's right to breathe clean air. The Council has members throughout Pennsylvania.

**Background:**

1. Timeline

On June 16, 2005, pursuant to Clean Air Act ("CAA") § 113, the United States filed a complaint and lodged a proposed Consent Decree resolving claims on behalf of the U.S. Environmental Protection Agency ("EPA") against Sunoco, Inc. ("Sunoco") for alleged violations of the Prevention of Significant Deterioration ("PSD") provisions, New Source Performance Standards ("NSPS") provisions, leak detection and repair provisions, and benzene waste emissions control

provisions of the CAA. The Consent Decree also settled claims regarding alleged violation of the Pennsylvania State Implementation Plan ("SIP"), which incorporates or implements the above federal provisions at refineries including Marcus Hook and Philadelphia. Plaintiffs' Notice of Lodging of Consent Decree and Certificate of Service, *U.S. v. Sunoco, Inc.*, No. 05-02866 (E.D. Pa. June 16, 2005).

On September 6, 2011, Sunoco announced that it would temporarily idle the crude refining operations at the Marcus Hook Refinery for business reasons, and on approximately December 1, 2011, began to permanently shut down those operations.

On August 17, 2012, Plaintiffs submitted a Fourth Amendment to the Consent Decree. Among its provisions, the Fourth Amended Consent Decree allows emissions reductions achieved from the permanent shut down of the Marcus Hook Refinery (to the extent that the Philadelphia and Marcus Hook refineries are determined to be a single source) to be used as credits or offsets in any PSD, major non-attainment or minor New Source Review ("NSR") permits provided that the new or modified units meet best available technology. Plaintiffs' Proposed Fourth Amended Consent Decree, *U.S. v. Sunoco, Inc.*, No. 05-02866 (E.D. Pa. Aug. 17, 2012).

The Fourth Amended Consent Decree is not yet finalized. Notice of lodging the Decree was published in the Federal Register on August 24, 2012, offering opportunity for public comment for thirty days. 77 *Fed. Reg.* 51,576. Clean Air Council and Environmental Integrity Project submitted comments on September 23, 2012.

On July 20, 2012, Sunoco submitted a "Request for State Only/Title V Operating Permit Administrative Amendment" to the Pennsylvania Department of Environmental Protection ("PA DEP") requesting a change be made to Title V Permit No. 23-00001. Sunoco claimed in the application that the Marcus Hook and Philadelphia refineries should be considered a single source. Sunoco attached a memorandum to the request for amendment, explaining why the two refineries should be considered a single source. The memorandum claimed that the two refineries should be aggregated because they are under common ownership, are classified under the same standard industrial classification ("SIC") code and used to be interdependent.

On August 7, 2012, PA DEP issued Title V Permit No. 23-00001, which included a condition that the Marcus Hook and Philadelphia refineries shall be considered a single facility for NSR, PSD and Title V applicability purposes. On August 15, 2012, Sunoco surrendered the permits for operating crude refining sources at the Marcus Hook Refinery. On August 25, 2012, PA DEP provided notice of the Title V amendment in the *Pennsylvania Bulletin*. 42 Pa.B. 5535

On September 24, 2012, Clean Air Council filed a Notice of Appeal, seeking review of PA DEP's amendment to Title V Permit No. 23-00001 at condition #041. *Clean Air Council v. PA DEP*, Case No. 2012-165.

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On September 29, 2012, AMS provided notice in the *Pennsylvania Bulletin* of its intent to issue Title V Operating Permit renewal V06-016 which would incorporate the Marcus Hook facility (which had no permits as of August 15, 2012) by reference and consider it as one facility for all air containment requirements, to PES for the Philadelphia Refinery. 42 Pa.B. 6145.

The Clean Air Council submitted comments to AMS on Permit V06-016 on October 29, 2012. To date the Council has not received a comment/response document or notification that the renewal has been finalized and issued.

On November 3, 2012, AMS provided notice that they intended to issue Plan Approval 12195.

On November 13, 2012, AMS received a plan approval application that updated an August 31, 2012 submittal from PES.

## 2. Legal Background

New Source Review ("NSR") programs are necessary under the CAA to help attain and maintain the national ambient air quality standards ("NAAQS") by preventing significant degradation of air quality. The particular NSR program applicable to a major new stationary source or significant modification to an existing major source depends on whether the area in which the source is located is in attainment or nonattainment areas for the particular pollutant.

Sources emitting pollutants for which the area is in attainment are regulated under PSD. CAA §§ 160-69. If the new construction or modification triggers PSD, the source must install best available control technology, perform an air quality impact analysis to confirm that the emissions from the modified facility will not cause a violation of the NAAQS, and perform an impact analysis addressing growth, soil, vegetation and visibility impairment.

Sources emitting pollutants in an area of nonattainment are regulated under the more stringent nonattainment NSR program ("NA/NSR"). CAA §§ 172(c)(5), 173. If the new construction or modification triggers NA/NSR, the source must install technology that ensures the lowest achievable emissions rate ("LAER"), obtain emissions offsets, provide certification that all facilities owned/operated by the applicant in the state are in compliance with all applicable emissions limitations and standards under the CAA and provide the results of an alternatives analysis showing that the proposed design is superior to other alternatives and that the benefits of the design outweigh the environmental costs.

In order to determine whether a modification triggers NSR, the facility must assess whether the emissions associated with the modification are significant. The significance threshold depends on the pollutant and the attainment status of the location where the modification is occurring. If the emission increase associated with the modification is "significant," an emissions netting analysis must be undertaken to determine if overall emissions changes at the facility for the pollutant under review exceed the significant modification threshold. The emissions netting process requires sources to total emission increases associated with the proposed modification, together with all emission increases and decreases at the facility occurring during the contemporaneous period (defined in the regulations as the five years prior to the modification). If the emission netting analysis indicates that total emission increases of the pollutant at the facility exceed the significant modification threshold, the proposed change triggers NSR.

### Comments:

1. The Philadelphia Refinery and Marcus Hook Refineries Did Not Constitute One Source When the Credits Were Generated.

Clean Air Council continues to question whether aggregation of the Philadelphia and Marcus Hook refineries is proper. *See Clean Air Council v. PA DEP*, Case No. 2012-165. *See also* Clean Air Council Comments, Permit V06-016 (Oct. 29, 2012).

Further, Clean Air Council learned, for the first time, during the file review for plan approval 12195, that Sunoco surrendered the permits for operating crude refining sources at the Marcus Hook Refinery on August 15, 2012. The Council seeks clarification on how AMS could propose to change the Title V permit for the Philadelphia Refinery on September 29, 2012, to include the Marcus Hook facility, when the Marcus Hook Refinery was shut down at the time.

Additionally, even if there is some way that AMS can explain away the aggregation of an operational source with a shutdown source, the aggregation determination has not been finalized. Clean Air Council submitted comments on the AMS aggregation determination on October 29, 2012 and has yet to receive a comment/response document or notification that the determination has been finalized.

On the date that the credits were generated, August 15, 2012, the Marcus Hook and Philadelphia Refineries did not constitute a single source with respect to the Philadelphia Refinery permit and therefore the Philadelphia Refinery is not eligible for the credits.

2. The Fourth Amendment to Consent Decree is Not Applicable Under this Plan Approval.

The Fourth Amended Consent Decree has not yet been entered and therefore it is not applicable to any modifications made at the Philadelphia Refinery.

The Fourth Amended Consent Decree, when finalized will only be applicable to four emissions units at Marcus Hook: 1) 10-4 FCC Unit (Id. 101); 2) 10-4 Feed Heater (Id. 040); 3) LSG HDS Heater (Id. 705); and 4) LSG Stabilizer Heater (Id. 706). PES is not claiming reductions from any of these units in this plan approval application.

3. Units Associated with the Marcus Hook NO<sub>x</sub> Control Plan Are Not Available as Offsets Under this Plan Approval.

The units and emissions reductions associated with the Marcus Hook NO<sub>x</sub> Control Plan are not available as offsets under this, or any other, plan approval. Clean Air Council does not have access to the plan but requests that AMS ensure that PES does not use any of those units for offsetting emissions at the Philadelphia Refinery.

4. AMS Received a Supplement to the Plan Approval After the Notification in the Pennsylvania Bulletin and Must Re-notice Its Intent to Issue this Updated Plan Approval.

On November 3, 2012, AMS provided notice that it intended to issue plan approval 12195. Midday on Tuesday, November 13, 2012, AMS received a plan approval application that updated an August 31, 2012 submittal from PES. On Wednesday, November 14, 2012 the draft plan approval was prepared and on Thursday, November 15, 2012 the statement of basis for issuing the plan approval was prepared.

This timeline is very troublesome. It is unclear how AMS could provide notice on November 3, 2012 of its intent to issue plan approval 12195 when it had not prepared a draft plan approval or statement of basis. Further, the Council is concerned that AMS received a complex 51 page plan approval supplement midday on Tuesday and the draft plan approval was completed the very next day.

AMS must issue another notice of intent to issue plan approval 12195 in the *Pennsylvania Bulletin* because the application changed since the initial November 3, 2012 notice. AMS must have its analysis complete and available for public review at the time it notices its intent to issue.<sup>1</sup> A supplemental application was received after the notice and AMS completed its analysis 12 days after the notice, therefore AMS must re-notice the public comment period. Further, the Council is concerned with the extraordinarily limited time and review this supplemental application received.

#### 5. AMS Must Include Ancillary Emissions Increases in its NSR Applicability Analysis

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<sup>1</sup> AMS must comply with the SIP. The EPA recently granted limited approval to submitted amendments to 25 Pa. Code chapter 127 ("Streamlining Amendments"). The approval was limited because the amendment did not "explicitly require that the agency's analysis be included in the materials made available to the public, and that the materials be made available for public inspection in at least one location." Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Streamlining Amendments to Plan Approval Regulations, 77 Fed. Reg. 60912 (Oct. 5, 2012) (Final Rule).

The Federal requirements with regard to public availability of information are codified at 40 CFR 51.161. Specifically, 40 CFR 51.161(a) requires that "[t]he public information must include the agency's analysis of the effect of construction or modification on ambient air quality, including the agency's proposed approval or disapproval."...the agency analysis required by 40 CFR 51.161(a) is not explicitly required in the proposed SIP revision, nor do the regulations of sections 127.44 and 127.45 require that the agency's analysis be made available for public inspection in at least one location, in accordance with 40 CFR 51.161(b)(1). Section 127.44(f)(1) requires only that the application be made available. Therefore, EPA is proposing to grant limited approval to PADEP's proposed revision. To receive full approval, PADEP must adopt the explicit requirement that the agency's analysis be included in the information provided to the public for comment pursuant to 40 CFR 51.161(a), as well as the requirement that the analysis be made available for public inspection pursuant to 40 CFR 51.161(b)(1), and submit those changes to EPA as a formal SIP revision.

PES includes “Ancillary Emissions” increases in “Table 2: Total Project Emissions,” of its supplemental plan approval application. These increases, however, are not included in AMS review of emissions.

The emissions increases, as reported by PES are as follows:

Source	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOC	PM	CO <sub>2</sub> e
Target Heater Emissions	130.7	2.9	121.4	7.9	10.9	138,731
Ancillary Emissions	26.1	1.7	42.1	7.4	3.3	51,237
Total:	156.8	4.6	163.5	15.3	14.2	189,968
- Offsets:	292.3	.4	199.1	33	28.4	261,167
Total Project Emissions	-138.5	4.2	-35.5	-17.8	-10.2	-71,200
NSR Significance Threshold	25	40	100	25	15/10	75,000

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If the ancillary emissions are downstream and are affected by the increased heat input capacity then they must be included in the NSR analysis.

#### 6. The Draft Permit Fails to Set Separate Limits for PM<sub>2.5</sub> and PM<sub>10</sub>.

The draft plan approval sets emissions limits for “particulate matter.” Particulate matter, however, is treated as two distinct air pollutants under the CAA: PM<sub>2.5</sub> and PM<sub>10</sub>. The two pollutants have separate national ambient air quality standards. In line with the EPA’s treatment of emissions of the pollutants, the final plan approval must include separate and distinct limits

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NSR Requirements If Marcus Hook and Philadelphia Were Not Aggregated	
NO <sub>x</sub> - NA/NSR	<ul style="list-style-type: none"> <li>- LAER</li> <li>- Emissions Offsets <ul style="list-style-type: none"> <li>o 156.8 X 1.15 = 180.31 (available if registered as ERCs from Marcus Hook)</li> </ul> </li> <li>- Certification that all facilities owned/operated by the applicant in the state are in compliance with all applicable emission limitations and standards under the CAA</li> <li>- The results of an alternatives analysis showing that the proposed design is superior to other alternatives and that the benefits of the design outweigh the environmental costs</li> </ul>
CO - PSD	<ul style="list-style-type: none"> <li>- BACT</li> <li>- Results of an air quality impact analysis conducted to confirm that emissions from the modified facility will not cause a violation of the NAAQS or exceed any applicable PSD increments <ul style="list-style-type: none"> <li>o CO NAAQS: 8-hour: 9ppm; 1-hour: 35 ppm</li> </ul> </li> <li>- The results of an impact analysis addressing growth, soil and vegetation impacts and visibility impairment</li> </ul>
GHG - PSD	<ul style="list-style-type: none"> <li>- BACT</li> </ul>

and standards for PM<sub>2.5</sub> and PM<sub>10</sub>. See 25 Pa. Code § 127.5(h); 25 Pa. Code § 121.1 ("applicable requirements" (ii)); see also 25 Pa. Code § 141.1.

#### 7. The RACT Limits for the Philadelphia Refinery Heaters Insufficient.

State nonattainment programs must require certain existing sources to implement reasonably available control technology ("RACT") as expeditiously as practicable. CAA § 172(c)(1). RACT is required on all major sources of VOCs and NO<sub>x</sub> in the Ozone Transport Region. CAA § 182(a)(2)(A), (b)(2). The Philadelphia Refinery is a major source of VOCs and NO<sub>x</sub> located in the Ozone Transport Region.

RACT is the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. 45 Fed. Reg. 59329, 59331 (Sept. 9, 1980).

In some cases, the NO<sub>x</sub> limits in the draft permit are up to six times an appropriate limit. The limits range from .089 lbs/MMBTU to .123 lbs/MMBTU, with one new heater as an outlier at .030 lbs/MMBTU. It is clear that EPA believes that these units can meet much more stringent limits, for example, the Fourth Amended Consent Decree requires that any new or modified unit at which credits will be used have limits of .020 lbs/MMBTU.

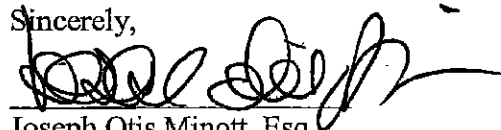
A review of the EPA RACT/BACT/LAER makes it clear that these are very dirty heaters and that the limits should be tightened.

Facility	RBL ID	Fuel	Throughput MMBTU/H	Process Code	NO <sub>x</sub> Limit lb/MMBTU
Sunoco Inc. Tulsa Refinery	OK-0126	Refinery Fuel Gas/Natural Gas	53.70	12.310	.030
Sinclair Refinery	WY-0071	Refinery Fuel Gas	233	12.390	.030
Valero Delaware City Refinery	DE-0020	Refinery Fuel Gas	240	12.390	.040
Sunoco, Inc. (R&M)	PA-0256	Refinery Fuel Gas	98	13.390	.020
Sunoco, Inc. (R&M)	PA-0252	Refinery Fuel Gas	260	11.300	.035
Valero Ardmore Refinery	OK-0089	N/A	145	12.390	.045
Corpus Christi Refinery	TX-0235	N/A	N/A	50.999	.070
Billings Refinery	MT-0030	Refinery Fuel Gas	165	12.300	.039

Facility	RBLC ID	Fuel	Throughput MMBTU/H	Process Code	NO <sub>x</sub> Limit lb/MMBTU
Billings Refinery	MT-0030	Refinery Fuel Gas/PSA Gas	266	11.300	.030
Arizona Clean Fuels Yuma	AZ-0046	Natural Gas/Refinery Fuel Gas	346	11.390	.0125
Valero Ardmore Refinery	OK-0089	N/A	135	12.390	.059
Williams Refining	TN-0153	Natural Gas	50	19.600	.030
St. Charles Refinery	LA-0213	Refinery Fuel Gas	N/A	13.390	.040

Thank you for the opportunity to comment. Please keep us apprised of any future actions related to Permit V06-016.

Sincerely,



Joseph Otis Minott, Esq.